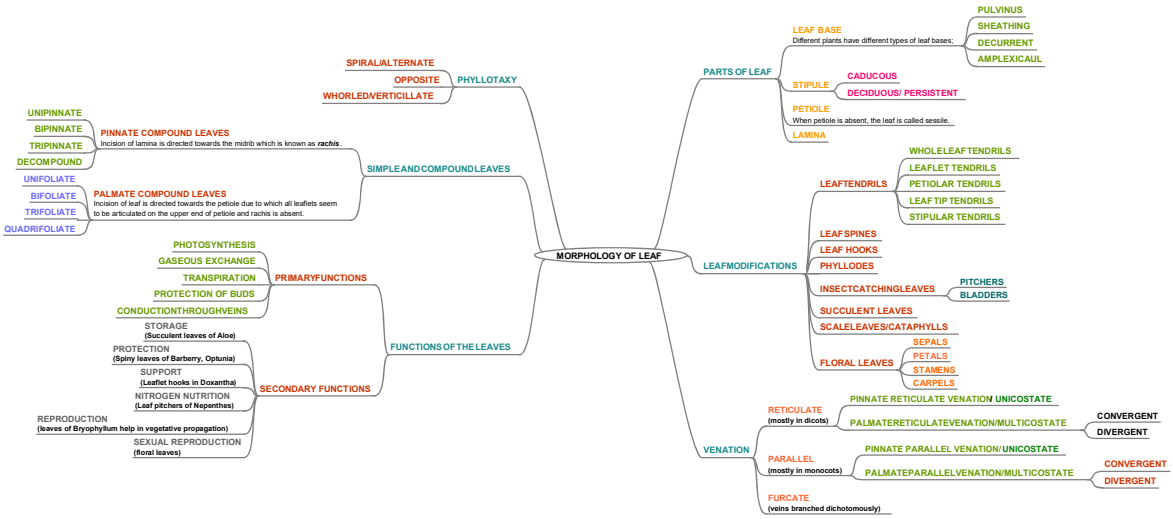
MORPHOLOGY OF LEAF
PARTS OF LEAF
LEAF BASE
Different plants have different types of leaf bases;
PULVINUS
SHEATHING
DECURRENT
AMPLEXICAUL
STIPULE
CADUCOUS
DECIDUOUS/ PERSISTENT
PETIOLE
When petiole is absent, the leaf is called sessile.
LAMINA
LEAFMODIFICATIONS
LEAFTENDRILS
WHOLELEAFTENDRILS
LEAFLET TENDRILS
PETIOLAR TENDRILS
LEAF TIP TENDRILS
STIPULAR TENDRILS
LEAF SPINES
LEAF HOOKS
PHYLLODES
INSECTCATCHINGLEAVES
PITCHERS
BLADDERS
SUCCULENT LEAVES
SCALELEAVES/CATAPHYLLS
FLORAL LEAVES
SEPALS
PETALS
STAMENS
CARPELS
VENATION
RETICULATE
(mostly in dicots)
PINNATE RETICULATE VENATION/ UNICOSTATE
PALMATERETICULATEVENATION/MULTICOSTATE
CONVERGENT
DIVERGENT
PARALLEL
(mostly in monocots)
PINNATE PARALLEL VENATION/ UNICOSTATE
PALMATEPARALLELVENATION/MULTICOSTATE
CONVERGENT
DIVERGENT
FURCATE
(veins branched dichotomously)
PHYLLOTAXY
SPIRAL/ALTERNATE
OPPOSITE
WHORLED/VERTICILLATE
SIMPLE AND COMPOUND LEAVES
PINNATE COMPOUND LEAVES
Incision of lamina is directed towards the midrib which is known as rachis .
UNIPINNATE
BIPINNATE
TRIPINNATE
DECOMPOUND
PALMATE COMPOUND LEAVES
Incision of leaf is directed towards the petiole due to which all leaflets seem to be articulated on the upper end of petiole and rachis is absent.
UNIFOLIATE
BIFOLIATE
TRIFOLIATE
QUADRIFOLIATE
FUNCTIONS OF THE LEAVES
PRIMARY FUNCTIONS
PHOTOSYNTHESIS
GASEOUS EXCHANGE
TRANSPIRATION
PROTECTION OF BUDS
CONDUCTIONTHROUGHVEINS
SECONDARY FUNCTIONS
STORAGE
(Succulent leaves of Aloe)
PROTECTION
(Spiny leaves of Barberry, Optunia)
SUPPORT
(Leaflet hooks in Doxantha)
NITROGEN NUTRITION
(Leaf pitchers of Nepenthes)
REPRODUCTION
(leaves of Bryophyllum help in vegetative propagation)
SEXUAL REPRODUCTION
(floral leaves)